554064

RECEIVED
OCT 30 2001

October 19, 2001

Safe Energy Communication Council
1717 Massachusetts Ave., NW
Suite 106
Washington, D.C. 20036
TEL: (202) 483-8491
FAX: (202) 234-9194
www.safeenergy.org

Carol Hanlon
S&ER Products Manager
U. S. Department of Energy
Yucca Mountain Site Characterization Office
P.O. Box 30307 M/S 025
North Las Vegas, NV 89036-0307

Re: Comments on the Secretary of Energy's Preliminary Recommendation of Yucca Mountain, Nevada, for Development as a High-level Nuclear Waste Repository

Dear Ms. Hanlon,

The Safe Energy Communication Council is an energy policy coalition of national environmental and public interest groups including the Sierra Club, U.S. Public Interest Research Group, Friends of the Earth, Greepeace, and Public Citizen. Our comments on the Secretary of Energy's preliminary recommendation of Yucca Mountain for the development of a high-level nuclear waste repository follow.

We believe the U.S. Department of Energy (DOE) lacks a valid basis for considering site recommendation, since key analyses and applicable rulemakings are incomplete. First, the Final Environmental Impact Statement (EIS) required under the Nuclear Waste Policy Act (NWPA) has yet to be issued. DOE's proposed licensing rule for a repository has not been finalized and an analysis by the Nuclear Regulatory Commission (NRC) determining whether DOE reasonably could apply for a license to construct and operate the proposed repository ("sufficiency review") has not been issued.

DOE is considering a site recommendation without the benefit of finalized Siting Guidelines. Since Yucca Mountain would be disqualified under the original Siting Guidelines, DOE has proposed changing the siting guidelines to rely on the proposed changes in its preliminary site recommendation. Since these changes have not been formally adopted, DOE lacks the basis for making a site recommendation.

Moreover, a reliance on proposed revised siting guidelines would undermine the integrity of the proposed high-level waste repository at Yucca Mountain. The NWPA required DOE to develop general guidelines to instruct the Secretary of Energy in the recommendation of high-level waste sites. In 1984, U.S. DOE published guidelines specifying factors, primarily based on geological and hydrological conditions that would disqualify sites from consideration for geologic repositories. When it became clear that Yucca Mountain was unlikely to meet existing criteria for suitability, DOE proposed new standards in 1999 that do not include specific disqualifying factors, but instead utilize "total system performance" criteria to predict whether the repository will meet EPA standards. According to the Nevada Commission on Nuclear Projects: "The Yucca Mountain site is known to have numerous geologic and hydrologic characteristics that should have caused it to be avoided when DOE screened for a site to geologically isolate long-lived radioactive wastes...However, because the site was selected by Congress in a political process instead of a scientific one, these geologic/hydrologic features were either ignored or masked by the Department of Energy in Congressional deliberations." Identified problems with Yucca Mountain include:

- Thirty-three known geologic faults at or near the site and more than 600 recorded seismic events of Magnitude 2.5 or greater in the past 20 years, including a Magnitude 5.6 earthquake in 1992 centered eight miles from the site--the maximum probable earthquake in the area of the site is estimated at Magnitude 6.5-7.0;

- Evidence of recent volcanism in the area of the site;

- Direct evidence that surface water has traveled 800 feet in less than 50 years. DOE had originally predicted that it would take thousands of years for water to reach the repository from the surface; and

- Agreement that ground water beneath the repository is capable of reaching the outside environment in 500 years or less. DOE siting guidelines originally required groundwater travel time to exceed 1000 years.

These serious deficiencies virtually guarantee that dangerous radionuclides will not be contained by the proposed repository and will migrate into the outside environment as engineered barriers ultimately degrade. DOE's assertion that engineered barriers will survive and enable the isolation of high-level nuclear waste throughout the 10,000-year design period demonstrates an extreme level of technological hubris. Since high-level nuclear waste must be isolated for up to 240,000 years, reliance on engineered barriers is unacceptable.

Before recommending the suitability of the proposed repository at Yucca Mountain, DOE needs to assess the security and safety implications of transporting 70,000 tons of high-level nuclear waste throughout the nation to Nevada. The suitability of Yucca Mountain is intrinsically linked to the viability of safely transporting nuclear waste through urban areas en route to the repository without posing an undue risk to public safety and health. We believe this is not possible. Routing projections indicate that high-level waste

shipments would likely pass within half a mile of the homes, schools, and workplaces of 50 million Americans in 43 states, making this an unprecedented proposal for nuclear waste transportation, both in terms of scope and scale. Transporting nuclear waste is inherently dangerous, since transport accidents elevate the risk of radioactive release and disperse this risk along shipment routes where emergency response personnel may lack the training and equipment to respond effectively in the event of a nuclear waste accident.

Furthermore, DOE has not evaluated the security risks posed by a massive transport of nuclear waste in the context of the domestic terrorist threat now faced by the United States in the wake of the September 2001 attacks. The demonstrated capability of the DOE Transportation Security Division to adequately safeguard special nuclear materials as they are transported across the nation's highways has proven inadequate in DOE simulations and force-on-force exercises. These security deficiencies must be thoroughly evaluated by independent, knowledgeable third parties outside of the influence of DOE and identified steps taken to address security weaknesses before DOE makes a site recommendation regarding Yucca Mountain.

Thank you for considering these comments. We look forward to your response.

Sincerely,

Christopher Sherry
Research Director
Safe Energy Communication Council